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Nebraska Summary: S761 Case-IH Farmall 70

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SUMMARY OF OECD TEST 2593 — NEBRASKA SUMMARY 761

CASE IH FARMALL 70 DIESEL

12 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—614 rpm)					
59.1 (44.1)	2500	4.15 (15.72)	0.488 (0.297)	14.23 (2.80)	
Maximum Power - (1 hour)					
62.5 (46.6)	2200	3.85 (14.55)	0.427 (0.260)	16.24 (3.20)	
Standard Power Take-off Speed (540 rpm)					
62.5 (46.6)	2200	3.85 (14.55)	0.427 (0.260)	16.24 (3.20)	

VARYING POWER AND FUEL CONSUMPTION

59.1 (44.1)	2500	4.15 (15.72)	0.488 (0.297)	14.23 (2.80)	Air temperature
53.1 (39.6)	2644	4.10 (15.54)	0.536 (0.326)	12.94 (2.55)	79°F (26°C)
40.3 (30.1)	2680	3.61 (13.68)	0.621 (0.378)	11.17 (2.20)	Relative humidity
27.2 (20.3)	2704	2.87 (10.87)	0.734 (0.446)	9.46 (1.86)	22%
13.7 (10.2)	2728	2.20 (8.34)	1.116 (0.679)	6.22 (1.23)	Barometer
--	2745	1.87 (7.06)	--	--	27.1" Hg (91.9 kPa)
--			--	--	

Maximum Torque - 190.4 lb.-ft. (258.2 Nm) at 1100 rpm

Maximum Torque Rise - 53.3%

Torque rise at 2000 engine rpm - 25%

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)

FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—7th (II-3) Gear									
46.2 (34.4)	3200 (14.23)	5.41 (8.71)	2502	4.6	0.592 (0.360)	11.78 (2.32)	155 (68)	49 (9)	27.1 (91.9)
75% of Pull at Maximum Power—7th (II-3) Gear									
38.2 (28.5)	2420 (10.77)	5.92 (9.52)	2677	2.5	0.621 (0.378)	11.22 (2.21)	155 (68)	49 (9)	27.1 (91.9)
50% of Pull at Maximum Power—7th (II-3) Gear									
25.9 (19.3)	1610 (7.17)	6.03 (9.71)	2693	1.2	0.679 (0.413)	10.25 (2.02)	155 (68)	49 (9)	27.1 (91.9)
75% of Pull at Reduced Engine Speed—10th (III-2) Gear									
37.9 (28.3)	2405 (10.69)	5.91 (9.52)	1545	2.4	0.449 (0.273)	15.53 (3.06)	152 (67)	49 (9)	27.1 (91.9)
50% of Pull at Reduced Engine Speed—10th (III-2) Gear									
26.1 (19.5)	1620 (7.21)	6.04 (9.72)	1558	1.2	0.489 (0.298)	14.24 (2.81)	155 (68)	49 (9)	27.1 (91.9)

Location of tests: DAEMTC (The Directorate of Agricultural Equipment and Testing Centre) Ankara, Turkey

Dates of tests: October - December 2009.

Manufacturer: Turk Traktor ve Ziraat Mak. A.S. Ankara, Turkey

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.834 **Fuel weight** 6.94 lbs/gal (0.832 kg/l) **Oil SAE** 15W40 **API service classification** CH-4 **Transmission and hydraulic lubricant** Akcela Nexplore fluid **Front axle lubricant** Akcela Nexplore fluid

ENGINE: **Make** Iveco Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** 025171 **Crankshaft** lengthwise **Rated engine speed** 2500 **Bore and stroke** 3.898" x 4.094" (99.0 mm x 104.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 195 cu in (3202 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements and aspirator **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: **Type** front wheel assist **Serial No.** Z8JP53368 **Tread width** rear 56.7" (1440 mm) to 76.0" (1930 mm) front 56.3" (1430 mm) to 76.0" (1930 mm) **Wheelbase** 87.6" (2225 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.12 (1.80) second 1.72 (2.77) third 2.34 (3.77) fourth 2.61 (4.20) fifth 3.36 (5.40) sixth 4.02 (6.47) seventh 5.47 (8.81) eighth 6.15 (9.89) ninth 7.84 (12.61) tenth 9.47 (15.24) eleventh 12.88 (20.73) twelfth 18.46 (29.70) reverse 1.09 (1.76), 1.69 (2.72), 2.30 (3.70), 2.56 (4.12), 3.29 (5.29), 3.94 (6.35), 5.36 (8.63), 6.03 (9.70), 7.68 (12.36), 9.28 (14.94), 12.62 (20.32), 18.09 (29.11) **Clutch** dual dry disc mechanically operated by foot pedal **Brakes** wet disc mechanically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2200 engine rpm or 1000 rpm at 2381 engine rpm **Unladen tractor mass** 7445 lb (3376 kg)

DRAWBAR PERFORMANCE
(Unballasted - Front Drive Engaged)
MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Consumption Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
5th(I-4) Gear									
45.1 (33.6)	6100 (27.13)	2.77 (4.46)	2347	15.1	0.565 (0.344)	12.33 (2.43)	151 (66)	52 (11)	27.2 (92.0)
6th(II-2) Gear									
48.6 (36.2)	5630 (25.04)	3.24 (5.21)	2199	11.7	0.530 (0.323)	13.14 (2.59)	152 (67)	52 (11)	27.2 (92.0)
7th(II-3) Gear									
49.8 (37.1)	4020 (17.89)	4.64 (7.47)	2205	7.1	0.520 (0.316)	13.40 (2.64)	154 (68)	52 (11)	27.2 (92.0)
8th(III-1) Gear									
52.2 (38.9)	3690 (16.42)	5.30 (8.53)	2199	5.4	0.499 (0.304)	13.96 (2.75)	156 (69)	54 (12)	27.2 (92.0)
9th(II-4) Gear									
51.4 (38.3)	2805 (12.48)	6.87 (11.06)	2201	3.9	0.505 (0.307)	13.81 (2.72)	156 (69)	54 (12)	27.2 (92.0)
10th(III-2) Gear									
49.8 (37.1)	2215 (9.85)	8.43 (13.57)	2199	2.3	0.517 (0.315)	13.48 (2.66)	158 (70)	54 (12)	27.2 (92.0)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's three point lift claim of 4010 lbs. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true Summary of data from OECD Report No. **2593**, Nebraska Summary 761, September 19, 2011.

Roger M. Hoy
Director

M.F. Kocher
D.R. Keshwani
P.J. Jasa
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 6th (2 II) gear	83.6	83.4
Bystander	--	--

TRACTOR SOUND LEVEL WITHOUT CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 6th (2 II) gear	84.2	84.6
Bystander	--	--

TIRES AND WEIGHT

Rear tires - No., size, ply & psi (kPa)
Front tires - No., size, ply & psi (kPa)
Height of Drawbar
Static Weight with operator - Rear
 - Front
 - Total

Tested Without Ballast

Two 16.9-30; 6 ; 15 (100)
 Two 12.4R24; **, 16 (110)
 17.1 in (435 mm)
 4420 lb (2005 kg)
 3190 lb (1446 kg)
 7610 lb (3451 kg)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 3505 lbs (15.6 kN)

i) Sustained pressure of the open relief valve: 2755 psi (190 bar)

ii) Pump delivery rate at minimum pressure: 15.4 GPM (58.3 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 13.5 GPM (51.0 l/min)

Delivery pressure: 1740 psi (120 bar)

Power: 13.7 HP (10.2 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	31.3	795
B	10.2	260
C	11.8	300
D	11.8	300
E	7.1	180
F	8.5	215
G	27.6	700
H	1.0	25
I	8.5	215
J	19.1	485
K	17.3	440
L	38.8	985
M	26.0	660
N	36.6	930
O	7.9	200
P	43.1	1095
Q	37.2	945
R	24.2	615

